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Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, DC 20554

IB Docket No. 11-109  
Concerning LightSquared Request for Modification of its Authority for an Ancillary  
Terrestrial Component

Dear Ms. Dortch,

It is ironic that the nation that developed the Global Positioning System (GPS) may soon be the only nation whose citizens are unable to take full advantage of GPS. Many thousands of existing high-accuracy GPS receivers, such as those used in survey, construction, agriculture and other applications of substantial economic importance will likely be rendered inoperable if LightSquared is allowed to operate in the band adjacent to GPS. This statement is true, regardless of where LightSquared's broadcasts fall within this 40 MHz wide block of L-Band spectrum. Reports have shown that economic impact of precision GPS is in the neighborhood of hundreds of billions of dollars. Another causality will be the L-Band broadcast services that LightSquared's predecessor sold to companies that provide GPS correction services. In fact, these very services are often the reason that high-accuracy GPS equipment open up their bandwidth to look within the LightSquared spectrum.

It seems that prior to last year, only a marginal attempt was made to communicate to the GPS community the plan for significant spectrum-usage change that would almost certainly impact GPS. That is not enough warning. Now, as a result, we face the prospect of a national treasure being compromised resulting in huge economic setbacks to the nation through its GPS industries and users. Further, there is no remedy that does not create a logistical nightmare as hundreds of thousands of GPS receiver equipment is replaced or upgraded. The GPS community should have been adequately involved from the beginning with notification to all manufacturers and other interested parties of exactly what the plan was for this spectrum. No one would have expected a statement like "Ancillary terrestrial component" to mean essentially doing away with the satellite part and replacing it with 40,000 high-powered transmitters – this needed to be stated.

At the minimum, going forward, the FCC should strive to assure:

- 1) Any new proposals by LightSquared on the use of their spectrum should be fully tested by the GPS community prior to being accepted so that classes of GPS receiver affected by the transmissions can be determined.
- 2) If the FCC allows LightSquared to move forward with their network, time needs to be given so that the GPS industry can work out a solution.
- 3) And a plan needs to be put in place so that neither GPS manufacturers nor their customers have to bear the full costs of receiver replacement.

There is little doubt that if a solution exists for precision GPS receivers to function in the presence of LightSquared's broadcasts, it will come at a cost. The costs to produce GPS receiver will likely increase due to expensive filtering and algorithm changes. And due to physics, it will be impossible to maintain the current level of performance while blocking out powerful transmissions in an adjacent band. At the minimum, consumers and GPS manufacturers should not have to foot the bill for receiver replacement given that they will suffer substantial economic burden due to loss of receiver operational capability.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Michael Whitehead", written in a cursive style.

Michael Whitehead